

OLDEST BEE PAPER
IN AMERICA

ESTABLISHED
IN 1861

THE AMERICAN BEE JOURNAL

DEVOTED EXCLUSIVELY TO PROGRESSIVE BEE CULTURE.

Vol. XVIII.

Chicago, Ill., January 3, 1882.

No. 1.

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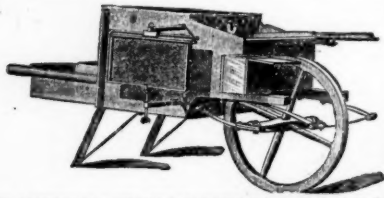
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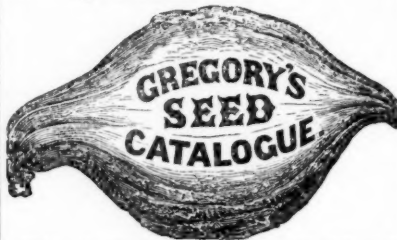
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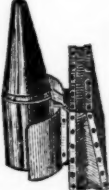
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This work is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. It is fully "up with the times" on every conceivable subject that can interest the apiarist. It is not only instructive, but intensely interesting and thoroughly practical.

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It is the latest book on the bee, and treats of both the bee and hives, with their implements. It is of value to all bee-raisers.—*Ky. Live Stock Record*.

It is a credit to the author as well the publisher. I have never yet met with a work either French or foreign, which I like so much.—L'ABBE DU BOIS, editor of the *Bulletin d'Apiculture*, France.

It not only gives the natural history of these industrious insects, but also a thorough, practical, and clearly expressed series of directions for their management; also a botanical description of honey producing plants, and an extended account of the enemies of bees.—*Democrat*, Pulaski, N. Y.

We have perused with great pleasure this *modicum* of the bee-keeper. It is replete with the best information on everything belonging to apiculture. To all taking an interest in this subject, we say, obtain this valuable work, read it carefully and practice as advised.—*Agriculturist*, Quebec.

This book is pronounced by the press and leading bee-men to be the most complete and practical treatise on bee-culture in Europe or America; a scientific work on modern bee management that every experienced bee-man will welcome, and it is essential to every amateur in bee-culture. It is handsomely printed, neatly bound, and is a credit to the West.—*Western Agriculturist*.

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CHICAGO, ILL., JANUARY 3.

"Hallelujah; 'Tis Done!"

This well-known and oft-repeated sentence expressed our feelings as we saw the last wagon load of BEE JOURNALS go to the post office, for the year 1881. It was a long and trying pull to get through with the first year of the Weekly; it involved the expenditure of considerable money, much labor of brains and hands, and, in the face of the all-but universal depletion of bees last winter, and its consequent depression on bee-keepers in the spring, it required a steady hand and dauntless courage to maintain the Weekly in these very trying circumstances.

"It is finished," the first year of the Weekly BEE JOURNAL is complete, and we view it with satisfaction—believing that, as a Volume, it is second to none of its predecessors. The encouragement and general endorsement it has received is even more than our most sanguine expectations. The subscribers of last year are nearly all renewing their subscriptions for 1882, and, with their renewals, express their unbounded approbation. Many who have heretofore only taken one or two numbers a month, now desire it every week, and hundreds of new readers are already enrolled for 1882.

It is hardly necessary to say that, for the coming year, we shall devote all our energy, determined to make the JOURNAL even more interesting and instructive than it has heretofore been, if that is within the range of possibilities. Its record, character, power and usefulness, in the past, will be its guarantee for the future, ever keeping in view the one grand object of its existence, that of further-

ing the interests of honey producers, by losing no opportunity to create a demand for this God-given product, opening up new avenues for its use, creating new demands and eager purchasers, both at home and abroad—thus benefiting every honey producer.

With encouraged heart, we, to-day, commence anew the battle for progress—with the motto of "ONWARD" inscribed on our banner—fully aware that patient and persevering work will conquer all difficulties.

Neither financial depression, loss of bees, failure of the honey crop in some localities, nor the foolish jealousies and merciless abuse, heaped upon us by evil-disposed persons, has been able to materially hinder the usefulness of the BEE JOURNAL, nor, in the least, to retard its onward march. From year to year it has increased in size and frequency of issue, in order to give its thousands of readers and correspondents an opportunity to participate in an interchange of thought, and fully discuss the various topics of interest that are ever and anon presenting themselves to the apicultural world for investigation and decision.

In short, the Weekly BEE JOURNAL will continue to be the medium of the best thoughts of the most advanced apiarists of this age. It will keep abreast of the highest progress, favor the freest discussion, and, by every means in its power, advance progressive bee-culture.

Scotch Heather.

The true Scotch heather, *Caluna vulgaris*, the great honey producer of Scotland, has been found in America. As shown by botanical records, it exists at Tewksbury, Mass., on Cape Elizabeth, Maine, and in Cape Breton, Nova Scotia and New Foundland. Vick's Magazine contains the following historical record of the Scotch heather in America:

The existence of this plant in this country was a matter of great interest in botanical circles in the year 1861, and for some time afterwards. In that year Mr. Jackson Dawson, a gardener of Boston, made it known that the plants were growing in a wild state at Tewksbury. At first it was deemed incredible that it could be a native of this country. Dr. Gray took a great interest in the subject, visiting the locality and examining the plants. All the facts being elicited from those living longest on the farm where it grows showed a knowledge of the existence of the plants in that field as early as 1810, and the condition of some of the plants at that

time to be such as to warrant the belief that they were at least a hundred years old, thus placing their origin near the year 1700. That part of the country is sparsely settled, and at that early date was still more so, and the spot where the heather grows is quite an unlikely one to attempt its cultivation. After considering all the circumstances, Dr. Gray, writing in the *American Journal of Science*, said: "It may have been introduced, unlikely as it seems, or we may have to rank this heath with *Scolopendrium officinarum*, *Subularia aquatica*, and *Marsilea quadrifolia* as species of the old world so sparingly represented in the new that they are known only at single stations—perhaps late lingerers rather than new comers."

Later, in 1864, when it was fully confirmed, as had previously been stated, that this heath grew in New



The Scotch Heather.

Foundland, its indigenous character was quite accepted. Still later in the same year, it was announced that *Caluna vulgaris* was growing at St. Annis, on Cape Breton Island. And in 1865 the re-discovery of it in New Foundland occurred, near Ferryland, on the east coast, where there is a small patch of it. Since then, as already stated, it has been found in Maine and Nova Scotia.

The plant being found in all these places, under conditions so unlikely for its introduction, little doubt remains that it is indigenous, and the probability that it is so is strengthened when it is considered, as has been noticed, that it exists at the extreme western limits of Europe, Ireland, Iceland, and the Azore Islands. New Foundland, Nova Scotia, Maine and Massachusetts are where it might naturally be expected, if found at all

on this continent. It is to be hoped that our Halifax friends will guard with scrupulous care the patch of it they yet possess.

Planting for Honey.

It is but a very short time since all the inquiries about planting for honey were answered nearly thus: "It will not pay to plant anything for the bees, unless it is useful for something else." The BEE JOURNAL for August, 1880, page 361, took the opposite ground, and now, to plant for honey has become almost as popular as the reverse was before that date. To furnish flora for our bees is just as reasonable and wise as to furnish pasture for our stock, and the time is coming when those who lack natural flora, and do not provide flora for the bees, will be thought as *old foggyish* as those who prefer box hives, black bees and from 6 to 10 pound boxes for surplus comb honey. It is very pleasing to notice the agricultural, as well as other bee papers besides the JOURNAL, coming into line and advocating progress in this matter. The *Indiana Farmer*, of last week, advises bee-keepers to plant for honey, and adds:

We have not had the room and time for extensive planting ourselves; but so far as our personal experience goes, we are satisfied of the feasibility of the plan. We believe that it will pay in a financial point of view, and in the more settled districts is destined to become the chief corner-stone for profitable bee-keeping.

Yes, it "is destined to become the chief corner-stone for profitable bee-keeping;" there can be no doubt of it in the minds of reflecting, *practical* men. It will pay to have bees work on basswood or white clover for a week or two, how much more profitable will it be to give them *continuous pasturage*, from which to gather honey from spring till frost? This is self-evident, and settles all controversy! By all means, plant for honey. There are many good honey-producers, but none are better than sweet clover—and none can give a more continuous flow of honey from June till after it is too cold for the bees to fly.

On Dec. 31, 1881, Mr. W. F. Conner, 151 Water street, Chicago, made a voluntary assignment, and Elisha Moore, Jr., was appointed assignee. The liabilities are put down at about \$1,800, and the assets are nominal. So said the *Chicago Tribune*. Mr. C. had handled some honey, but we hope bee-keepers are not largely interested.

On page 395 of the BEE JOURNAL for Dec. 14, Mr. Heddon makes use of the following language, in speaking of comb foundation: "Every year I receive samples by mail, and wherever I have ordered a few pounds, I have never in a single instance received ever so small a lot equal to the samples. Nearly every piece of these samples betrays the use of soap." We have received several letters from foundation manufacturers in reference to this matter, all complaining of injustice done them by implication. Of course, this was far from Mr. Heddon's intention, who probably intended only to censure the frequent practice of selecting the finest specimens as samples of their general sales. We trust no further notice will be taken of this matter.

Many topics suggested by our correspondents for editorial articles are waiting until we can get time to write them. We hope soon to reach them—we are very busy now.



MISCELLANEOUS.

Progress.—The Iowa City *Republican*, in its report of the Fine Stock Convention, held at Iowa City, Iowa, says:

"Points of Progress in bee-keeping" by Rev. O. Clute, was the subject of an interesting address. The speaker, who has become well-known the country over, delighted an already tired audience with a wonderfully interesting impromptu talk. He explained his method of caring for bees, extracting honey, etc., illustrating his remarks by exhibiting his hives and other apparatus.

Progress of Bee-Culture in England.—F. R. Jackson, Esq., writes as follows to the *West Sussex Gazette*:

Although there are few pursuits which with a like amount of care and capital yield equally remunerative results, apiculture, as compared with other branches of industry, has been, till lately, much neglected in England. In May, 1874, several philanthropic and spirited gentlemen acquainted with bee-keeping, much interested in its pursuit, and convinced of the practical benefits resulting therefrom, formed a committee, and instituted the British Bee-Keepers' Association, for the encouragement, improvement, and advancement of bee-culture in the United Kingdom, particularly as a

means of bettering the condition of cottagers and the agricultural laboring classes, as well as for the advocacy of humanity to the industrious laborer—the honey bee. Under the auspices of this Association, the cottager soon found the hive bee the most profitable live stock, necessitating a very small outlay, and thriving with little expenditure of time, which could be given when most convenient. So successful has bee-keeping proved under the modern rational and humane system, that a hive of bees returns in ordinary seasons from 100 to 500 per cent. on its actual cost, many cottagers not only paying their rent by their bees, but realizing a considerable profit beyond this. Such success has attended the efforts of the British Bee-Keepers' Association, that numerous county associations have been formed, over three of which the Princess Christian, the Duke of Connaught, and the Archbishop of Canterbury preside. Many noblemen also, as Presidents and Vice Presidents, are interested in bee-keepers' associations, which are doing good work in their respective counties. Over the Parent Association, the Baroness Burdett-Coutts, ever ready to lead the way in encouraging works of practical utility, has for some time presided.

No county in England is more favorable for bee-keeping than Sussex, for which a Bee-Keepers' Association is about being started, and the name of a popular nobleman as its President, augurs well for its prosperity and advancement. A pursuit at once so interesting and profitable, should surely meet with the hearty support and co-operation of all who have at heart the comfort and well-being of the industrious cottager.

Wasted Sweetness.—Mr. W. Z. Hutchinson, in the *Rural New Yorker*, says:

There is, probably, enough honey that goes to waste for want of bees to gather it, to sweeten all of the pies, cakes and cookies that are baked. Upon nearly every eighty-acre farm there is enough honey secreted by the flowers each year to furnish its owner with "sweetening power" from honey harvest to honey harvest. It is admitted by our best apiarists that a few colonies in a place give better results than a large number; therefore, if the bees were scattered about, a few colonies at each farm, there would not be so much sweetness wasted. To be sure, there are, and probably always will be, people who make a specialty of bee-keeping, owning their hundreds of colonies; and this is all right; it is to such persons as these that we are indebted for the improvements that have made bee culture the safe, pleasant and profitable pursuit it now is; but this need not deter any farmer from keeping a few colonies of bees that will supply his table with that most delicious and healthful of sweets, pure honey. They will probably find bee-keeping to be one of the most fascinating occupations in which they were ever engaged.

Odd-Sized Frames.—In answer to a question in the *Bee-Keepers' Magazine* Prof. Hasbrouck, says:

There is one serious objection to your plan. The size of frame you propose would be irregular, and on that account your bees would be unsalable at anything like their real value, if you should ever want to sell. Bees sell best in Langstroth or American frames, and probably as much honey can be taken with one of these frames as with the other, and as much with either as with frames of any other size. The honey secured depends more on the locations and upon the experience and skill of the bee-keeper, than upon the size of the frame he uses. If you are sure that neither you, nor your children, assignees, or executors will ever want to sell bees, you can put them into whatever frames suit your fancy, as long as you can make one of the standard size of sections fit along side, and on top of it.

Don't think of using any irregular size of sections, even if you use an odd frame. The standard sections are kept in stock by supply dealers, and can be furnished cheaper, and on shorter notice than you can get any made to order. Besides they sell better when filled.

Antiquity of the Bee.—An exchange remarks as follows on this subject:

The bee bears the same relation to the other orders of insects that the Caucasian race bears to the other races of mankind; it is the highest type of insectian form and development. Endowed with instinct, and "a kind of reason, differing perhaps only in degree from that of man, these insects outrank all other articulates." In the fossiliferous history of our earth, the bee does not date far back, but is the last to appear upon the earth's surface.



Local Convention Directory.

1882. *Time and Place of Meeting.*
 Jan. 10—Cortland Union, at Cortland, N. Y.
 C. M. Bean, Sec., McGrawville, N. Y.
 10—Eastern N. Y., at Central Bridge, N. Y.
 N. D. West, Sec., Middleburgh, N. Y.
 12, 13—Nebraska State, at Ashland, Neb.
 Geo. M. Hawley, Sec., Lincoln, Neb.
 17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill.
 Jonathan Stewart, Sec., Rock City, Ill.
 17, 18—N. E. Wisconsin, at Berlin, Wis.
 T. E. Turner, Sec. pro tem.
 24, 25—Indiana State, at Indianapolis, Ind.
 25—Northeastern, at Utica, N. Y.
 Geo. W. House, Sec., Fayetteville, N. Y.
 April 11—Eastern Michigan, at Detroit, Mich.
 A. B. Weed, Sec., Detroit, Mich.
 25—Texas State, at McKinney, Texas.
 Wm. R. Howard, Sec.
 26, 27—Western Michigan, at Grand Rapids.
 Wm. M. S. Dodge, Sec., Coopersville, Mich.
 May—Champlain Valley, at Bristol, Vt.
 T. Brookins, Sec.
 25—Iowa Central, at Winterset, Iowa.
 Henry Wallace, Sec.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Southeastern Michigan Convention.

The first annual meeting of the Southeastern Michigan Bee Keepers' Association was held at the Court House in Ann Arbor, Dec. 15, 1881. The meeting was called to order by the President.

Professor G. B. Steere, of the University, gave a very interesting address on "the Races of Bees," which imparted much valuable information. Speaking of the Asiatic races, he said: The large black bee was twice the size of our common bee, and built their nests under the limbs of trees, make a large quantity of wax and produce some honey. There are also the small bees that build their nests in rocks and hollow trees. These species of bees he thinks will not prosper in this climate. The large bee is very ferocious, and it is very dangerous to undertake to capture them. The small ones are not so bad, but do not gather so much honey. Bee hunting is a profession with the natives; wax being the principal product. The large bee is *Apis Dorsata*. The professor has a young man living with him that he brought from the Philippine Islands, whose father is a bee hunter by trade. Taxes and church rates are there paid in beeswax. The Professor expects to get more information through this young native.

Another species found in the mountains of Formosa, where the climate is similar to ours, gather a good quantity and quality of honey, are very docile, live in the walls of houses, and are familiar with the family. He visited the mountains in his travels around the world, became acquainted with the missionaries, and thinks that they may be secured through them. He was chosen a committee to correspond with them in order that some nuclei may be obtained.

Dr. Ashley was very enthusiastic over the plan, and said we will call *Apis Formosa* the "coming bee."

The following essays were read: on wintering bees by N. A. Prudden; on feeding by L. W. Bodwell; on queen rearing by C. K. Bennett. The President gave an address, and several discussions followed. The following officers were elected: For President, H. D. Cutting, Clinton, Lenawee county; Joseph Butler, of Jackson, Vice President for Jackson county; C. K. Bennett, Vice President for Washtenaw county; and C. Thomson Briton, Livingston county; J. H. Murdock, of Dexter, Recording Secretary; G. J. Pease, Ann Arbor, Corresponding Secretary, and N. Eastwood, Ann Arbor, Treasurer.

The time and place of next meeting was left to the President, Secretaries and Treasurer, as an Executive Committee.

N. A. PRUDDEN.

The Northwestern Wisconsin Bee-Keepers' Association will meet in the City Hall at La Crosse, Wis., on Jan. 2, 1882. Essays and discussions on important subjects concerning bees will be the order.

L. H. PAMMEL, Sec.

The Northeastern Bee-Keepers' Association will hold their twelfth annual convention in the Common Council Halls, at Utica, N. Y., on the 25th, 26th, and 27th days of January, 1882. The executive committee are determined to maintain the high standing and enviable reputation the association has justly gained in the past, and propose to outdo all former efforts on this occasion. From present indications the coming convention promises to be the largest and most interesting ever held in America. New features will be introduced, and business of vital importance will be brought before the convention that makes it the duty of every member and bee-keeper to attend. Essays and addresses are expected from Capt. J. E. Hetherington, W. L. Tennant, L. C. Root, James Heddon, Chas. Dadant, T. G. Newman, N. N. Betsinger, Dr. A. H. Marks, and others of America's renowned apiarists, on the most interesting topics of the day. If you wish to enjoy the benefits to be derived from the good work already in progress by this association, you will surely attend. All are invited; none can afford to remain at home. Articles and implements of the apiary for exhibition, etc., should be sent to the Secretary, at Utica, N. Y., who will take personal charge of the same and arrange all articles so as to compare favorably with others on exhibition.

DR. A. H. MARKS, Pres.

GEO. W. HOUSE, Sec.

The Nebraska State Bee-Keepers' Association will hold its annual meeting in Ashland, Neb., on the 12th and 13th of January, 1882. A cordial invitation is extended to all who are interested in bee-culture. Members will be returned to their homes by the railroad companies at 1 cent per mile.

T. L. VONDORN, Pres., Omaha.

G. M. HAWLEY, Sec., Lincoln.

The eastern New York Bee-Keepers' Union Association, will hold their ninth Convention, Tuesday, Jan. 10, at 10 a.m., at Central Bridge, Scho. Co., N. Y.

W. D. WRIGHT, Pres.

N. D. WEST, Sec.

The annual meeting of the N. W. Illinois and S. W. Wisconsin Bee-Keepers' Association, will be held in Temperance Hall, Freeport, Stephenson Co., Ill., on Jan. 17 and 18, 1882.

JONATHAN STEWART, Sec.

The Indiana State Bee-Keepers Association is called to meet in annual session, Wednesday and Thursday, Jan. 24 and 25, 1882, in the rooms of the State Board of Agriculture. By order of EXECUTIVE COMMITTEE.

The Texas State Bee-Keepers' Convention will be held at McKinney, Texas, on Tuesday, April 25, 1882.

Subscriptions may commence with the first number of any month in the year.

CORRESPONDENCE

For the American Bee Journal.

Foundation for Sections—A Review.

G. M. DOOLITTLE.

Just at the close of the honey season for 1875, I received from Wm. Hoge, of New York city, a package of comb foundation to use in boxes, he saying, as an explanation, that a great saving was to be gained by the use of it, as the bees would draw the side-walls out to full-length cells, thus making the combs out of the wax in the foundation. As it cost 20 lbs. of honey to make 1 lb. of wax, a saving of \$4.00 per lb. was gained, as honey sold readily at 25 cents per lb. at that time, and a pound of foundation cost but \$1.00. This was supposing, of course, that the pound of foundation would hold as much honey as a pound of natural comb, and as it all looked reasonable at first sight, I tested the matter by buying one pound of it.

As the honey season was so near being over, I had to feed some extracted honey to get the sections containing the foundation sealed over, when I had as nice-looking sections of honey as I ever saw built with natural comb. However, I was soon convinced that the claim of saving to the bees was erroneous, as upon cutting, or rather, trying to cut these sections of honey, the knife would stop when it came to the foundation, and upon examination (which was done by a little scraping and washing), I found I had my original piece of foundation untouched except as the bees had added their wax to it in building out the cells.

The next year more was used from different makers with like results, at which time I began to expostulate with A. I. Root, the most extensive manufacturer at that time, reasoning that in time our honey markets would be spoiled if we persisted in using such thick stuff as a base to the comb in our surplus honey. His reply was that "It has already grown into quite an industry, and we are using wax by the ton." Time passes, and 1877 finds me with plenty of foundation, made from my own wax, upon which many experiments were conducted; but at the end of the honey season we found all our honey built on foundation contained a thick base or "fish-bone" in the center. Again I expostulated with Mr. Root, but was met with the reply: "It is utterly incomprehensible to me the way you stick to your old notions on foundation; it has filled the markets with most beautiful honey."

About this time the BEE JOURNAL lifted up its voice of warning, and bee conventions resolved against its use for comb honey to such an extent that some of our large honey producers began to study on the matter of making a very thin foundation to overcome this difficulty. In due time the Van Deusen flat-bottomed foundation appeared before the public as a result,

and we had foundation so thin that it took from 10 to 14 square feet to make a pound. This seemed to be successful as far as the "fish-bone" was concerned; but as the bees had to change the flat bottoms into a lozenge-shaped septum, it began to be whispered around that it was not accepted as readily by the bees as foundation with a natural-shaped septum. However, this was far ahead of any brought before the public so far, and thus it could be readily seen that we were making some progress.

During 1880 we hear of still another advance, as Mr. Vandervort has succeeded in producing foundation running from 10 to 12 square feet to the pound, with a lozenge-shaped base, which is said to work equally as well as the Van Deusen, and having none of the objections urged against that. Thus, we find the Northeastern Convention, in February, 1881, giving that the preference over the Van Deusen. We now find A. I. Root falling into line, and advertising, in his price list, *very thin* foundation for comb honey, running at least 10 square feet to the pound, and our faith is now quite strong that comb foundation for section honey will prove a success, for "out of a multitude of counselors cometh wisdom."

Accordingly, last spring, to make a thorough test, I procured foundation of the following parties: A. I. Root, Medina, O.; G. W. Stanley, Wyoming, N. Y.; J. G. Whitten, Genoa, N. Y.; R. Van Deusen, Sprout Brook, N. Y., and Chas. Dadant & Son, Hamilton, Ill. That procured of Root was his own make, but proved to run only 6½ feet to the pound, instead of 10 as advertised, and besides, it was made of very dark, dirty wax. That from Stanley was made on the Vandervort machine, was very nice wax, and ran 11 feet to the pound. Mr. Whitten's was made on a Dunham machine, and was the nicest I had ever seen coming from a Dunham mill, as it ran 10½ feet to the pound, and was made of nice wax. Mr. Van Deusen's was the thin flat-bottomed, which is, I think, the prettiest foundation to look at of any I have yet seen. Of Chas. Dadant & Son I had both the Root and Dunham.

The Root run about 7½ feet to the pound, and the Dunham about 6. As to the quality of wax, I will say this last was the nicest of all. I filled 20 section boxes full within ¾ of an inch of the bottom with each kind, and marked the name of the party producing the foundation on each box. In due time these boxes were placed on the hives so that an equal number (six, one of each kind) was on each hive.

The different hives were examined at different times, and the result showed that the two kinds produced by Dadant, and that by Stanley, were worked upon about alike, and finished at nearly the same time. That produced by Root and Whitten was about a day later in being finished, while the Van Deusen was nearly three days behind the first named. This was taking the average time of the 20 colonies

which worked upon them. Thus we proved by experiment, at least, that it did take time for the bees to manipulate the flat-bottomed foundation.

After all were off the hives we were anxious to know which kind had the thinnest base, or, in other words, which was the most free from the fish-bone center so much has been said about. Accordingly, I procured a very sensitive pair of scales, showing the variation of ¼ ounce accurately, and upon these fixed a No. 16 wire (being square at the end) so it stood perpendicular. I now placed the section of honey on this wire, letting it down carefully till the square end touched the base, and then watched the scale till the wire passed through, noting down the number of ounces resistance produced by the base of the foundation on this wire.

Each of the sections was thus subjected to this trial in three different places, when the amount was footed up and an average made, and the average of the 20 sections taken. When this was done, the same number of sections containing natural comb were subjected to the same test and an average taken, which gave us this showing: A. I. Root's make showed the average pressure of 6¾ ounces; G. W. Stanley's make (Vandervort), 4¼ ounces; J. G. Whitten's (very thin Dunham), 5½ ounces; R. Van Deusen's (flat-bottomed), 5 ounces; Dadant's (thin Root), 5¾ ounces; Dadant's (thin Dunham), 6½ ounces; natural comb, 4½ ounces. Thus it will be seen that the Stanley (Vandervort) foundation is even thinner than the natural comb, according to this showing; then in order comes the Van Deusen, Whitten (very thin Dunham), Dadant (Root), Dadant (Dunham) and A. I. Root (Root), none of which proved to be as thin as natural comb. These experiments were conducted carefully, to arrive at the truth of the matter as near as could be done in one season with 20 section boxes of each kind. This showing is very flattering indeed to Mr. Stanley.

I am in no way interested in the sale of any kind of foundation, consequently am not prejudiced in the least. One thing I wish to say about all foundation, which I have long believed to be so, but have had no chance to prove it so till the past season, which is this: At a time when honey is coming in moderately, say when a good colony is bringing in from 3 to 5 lbs. per day of extracted honey, comb foundation is a success in the surplus arrangement, but at a time when honey comes in with a rush, the same colony gathering from 12 to 20 pounds per day, it does not pay the cost, for my bees will fill a box having a starter of natural comb, and finish it, as quickly as they will one full of foundation by its side. All through basswood the past season, when honey was coming in slowly, the foundation was drawn out and finished before a box by its side with a starter was half filled, but when the rush came on from teasel and red clover, those with starters were filled fully as quick, as has been my experience for several years before.

Borodino, N. Y.

For the American Bee Journal.
Beautiful Bees.

J. W. WHITE.

"I do not breed bees for beauty, but for business." "I do not care for bands, but for honey." "The bees which gather most honey are the bees which look the prettiest." How many songs of this kind are sung and caught up and repeated all over the land, until the uninitiated would think that there must be some inherent weakness in beauty, and some peculiar virtue in uncomeliness. Is it true?

The all-wise Creator has given us a sense of the beautiful, and he ever seeks to gratify it in ten thousand ways. He has also given us a more or less clear perception that the beautiful and useful are in some way very closely related. Who, in beholding beautiful homes and lawns, beautiful farms and gardens, beautiful horses and cattle, beautiful fruits and grain, beautiful implements and machinery, and, not to add more, beautiful bees and honey, does not feel some gratification, and does not believe that in some way, excellent qualities are, or should be, embodied in their beautiful forms? Why do people pay more for honey put up in neat packages than in uncomely ones? Is it not because they know that the good and the useful are closely related.

For this reason I am in favor of beautiful bees, beautiful in form and beautiful in color.

BEAUTIFUL IN FORM.

This is the first and most important factor of beauty in bees, as it is of their use. Agility or rapidity of motion in the animal kingdom, in birds, beasts, fishes and insects, is found, in a corresponding form, graceful, long and tapering. The Italian bees are just as much superior to the blacks as their form is more beautiful. In looking over some old volumes of the BEE JOURNAL this morning, I found in vol. IV., page 57, the following from the pen of Charles Dadant:

"All (Italians) are alike in all hives, all have three yellow bands...and, above all, an abdomen more tapered—a body more slender, giving them a more graceful shape and brisker appearance than those of our would-be improved bees. As it is above all in the shape of the body of the workers, that their superiority over the black bees resides, we must adhere especially to the shape of the Italian bees."

The italics are Dadant's. Has not this point been lost sight of too much, and in the effort to raise many queens for the market, has not beauty, and hence superiority, been sacrificed in many cases to numbers? Long, slender, tapering queens and workers are the most beautiful bees, and they are the best.

BEAUTIFUL IN COLOR.

Form should never be sacrificed for color, nor is it necessary. Can we not have the best qualities, not only in the prettiest forms, but also in the brightest colors? There is no law of necessity by which they can be di-

vorced. The best fruits have the richest bloom. The best cattle may have the prettiest marks. The brighter color, as well as prettier form of the Italian bees, is the signal and promise of their superior qualities. When they are kept perfectly pure in the clear, bright atmosphere of America, they grow into brighter colors, and, if they retain their perfect form, are as good honey gatherers as the newly imported Italians, or even better. Is it not possible that a good deal of the contempt for light-colored bees has arisen from prejudice, or something worse? In most places, owing to more or less admixture of black blood, it is a good deal easier to raise dark or leather-colored Italians than it is to raise queens which will produce light, three-banded workers. The first Italian queens I ever had, I bought from Langstroth, Quinby and Cary. They were all warranted to produce three-banded workers, and they did it.

In 16 years' experience, I have found that the bright Italians, as a rule, are in no way inferior to the darker ones. This last summer I gave special attention to this, and found that my lightest-colored bees are the very best workers I have. As I saw in the papers so much about superior colonies of the dark Italians, I sent to a number of the most reliable and widely-known men who offered queens for sale. It cost something, but I got my money back, if not in better bees—in a better knowledge of what others are doing.

If these dark-colored Italians have not some black blood in them, their looks and their manners belie them. Possibly their mother, or their grandmothers had a taint of black blood in them before they left Europe. They may be good honey gatherers—so are the hybrids. A pure Italian queen which has mated with a black drone, the kind I had 16 years ago, will produce good workers, and the queens raised from her will be large and prolific, and their workers very energetic and industrious. But as yet, I have found nothing which pleases me so well as beautiful Italians—beautiful in both form and color.

One point more: Bees, as everything else, have their normal size. All queens under the normal size should be rejected, at least they should never be used to breed from. It may produce no apparent change to breed from small queens for one or two generations, but if persevered in, it may produce dwarfed bees.

When I first commenced raising queens, I had some quite small ones; some of them did well, and some of them laid small eggs, and their bees when they first came out of the cell, were too small. There is danger here. In all the queens I have bought for years from different parties, there was only one or two which were not below the normal size.

As the result of all my experience and observations, I say in all sincerity, let others have what they will, but give me the long, tapering, three-banded Italians, and if they have been long enough in this country to become naturalized, and to hang out the

American colors, so much the better. A bright and beautiful bee is the bee for me, the bee for honey, and the bee for money.

Milroy, Pa., Dec. 15, 1881.

For the American Bee Journal.

Handling Bees Without Protection.

WM. F. CLARKE.

I have just been reading a bit of Mrs. Harrison's experience in bee manipulation, as narrated in the *Prairie Farmer* of Dec. 17, and enjoyed a hearty laugh over it. Her ladyship was in such a hurry to try "Hill's Devices" for successful wintering, that, to use her own words, "we forgot to put on our wire hat and gloves, until reminded of them by receiving a sting on the nose, another on the cheek, and a bracelet of them around our wrists. Although we were destitute of an audience, we expressed our mind pretty freely with reference to those who advise working with bees without any protection. After delivering this essay we retired to the house, pulled out the stings, and, donning wire hat and gloves, went out again to the apiary a much smarter though sadder woman." The above would read better to my notion, if "I" and "my" had been used instead of "we" and "our." Not only so, but we could then concentrate all our sympathy on one sufferer. I wish I had been the audience to have heard that piece of Mrs. H.'s mind which she delivered so freely in regard to those who advise working among bees without any protection. But I add my "Amen" to it all the same, that is if she didn't say anything stronger than "drat-em," or "confound-em," which, of course, being a lady, may be taken for granted. Still, if she felt like the school-girl who wished she were a boy just for a little while, when she dropped her school-books in the mud, I should not be disposed to blame her very severely.

Very absurd things are sometimes said by bee-keepers of high standing about the use of veils and gloves, and the idea is often conveyed that, having recourse to them, is proof positive of want of certain qualities essential to apiarian eminence. I wish this class of bee-keepers, as well as myself, had heard Mrs. Harrison's impromptu remarks on the occasion in question. Judge M., an old friend of mine, and an enthusiastic amateur bee-keeper, was one of those who would have been "hit hard" by Mrs. Harrison, if he had been within hearing of her cursory remarks. But he was converted a long time ago by a bit of personal experience. It was a favorite pastime of his to poke fun at me for using a veil and gloves, but one day he called on me and said: "I have come to own up; yes, I confess the corn. After this, I shall wear a veil and gloves in handling bees." He then went on to relate, that, the day before, he was taking an after-dinner look at his apiary, when, by some mischance, his foot slipped, and he fell heavily against a hive of

bees, knocking it over. Instantly, the disturbed occupants came at him with fire and fury. Fortunately, the grass was long, and there was a big Norway spruce, well brushed to the ground, close by. Quick as thought he dropped, and crawling forward got his head esconced in the evergreen brush. There he lay, the bees not standing, but flying guard all around him. They kept him prisoner till the shades of evening gathered, and he improved the passing hours by thinking over some law cases he had on hand, rising, at last, smarter and sadder, like Mrs. Harrison. To guard against possible contingencies, it is well to be protected.

But why does Mrs. H. use a wire hat? It is a stiff, clumsy affair, and gets unpleasantly rusty with the moist breath. Black netting is better. A veil of any kind is rather close and hot, especially in July weather, but a Turkish bath does one good, and I get several in the course of a season, without expenditure of money, or loss of time, as one of the casual advantages of bee-keeping.

Listowel, Dec. 22, 1881.

For the American Bee Journal.

Salicylic Acid and Foul Brood.

A. R. KOHNKE.

The difference of opinion as to the probability or possibility of curing foul brood, as stated in the proceedings of the Michigan State Convention, I consider very damaging to the bee-keeping public at large; the more so, when noted bee-keepers disagree on the subject. Mr. C. F. Muth says it can be cured by the use of salicylic acid, while Mr. D. A. Jones asserts he has thoroughly tested it, and found it of no use, indirectly hinting that he has another and surer remedy. From the nature of the disease, I doubt Mr. Jones having had a case of genuine foul brood. Nor will Mr. Townley's remedy stay the progress of the disease among his remaining bees, if it has attacked as many as 60 or 70 colonies, for he could not possibly know what colonies of the remainder had caught the contagion before the disease makes its appearance among the brood.

But, then, there is a great deal in knowing how to do a thing. It would take more space than I am allowed in this article to describe, minutely, the *modus operandi*, but I will say this much, if Mr. Jones knows of a better remedy, please let us bee-keepers have the benefit of it; if not, I make the following proposition to him: I agree to go to his apiary next summer, first week in July, to cure with salicylic acid a genuine case of foul brood, if he has such; if he has not, he may designate any other infected apiary accessible by railroad, lying between the Missouri river and 4th deg. long. east of Washington, and between the 40th and 48th degs. north latitude. If I succeed, he is to pay me \$500 and all expenses of traveling and boarding; if I do not succeed, he is to pay nothing, I assuming the loss of time and

money expended, provided, however, there is no foul brood in the neighborhood outside of the apiary treated, whereby bees in that apiary may be exposed to continuous contagion. It will take from 3 to 6 weeks to do it, according to whether or not there are many colonies, and badly diseased. My time would, of course, be worth more than the above sum asked, as I want to carry on some experiments at home, to do which I would have to engage a competent man; but I wish to remove all doubts with bee-keepers as to the curing of foul brood, and Mr. Jones will have the choice of either accepting my proposition, or acknowledge to have been mistaken as to his thorough test of salicylic acid.

Youngstown, O., Dec., 1881.

For the American Bee Journal.

Extracted Honey—No. 1.

JAMES HEDDON.

After wishing each other a happy and successful New Year, do we not all feel that our past year's discussions through the BEE JOURNAL, though they sometimes waxed warm, have been the means of giving us more light, and bringing us nearer to that point which we never can reach—perfection. Each of us may have thrown out some erroneous theories, but they served a useful purpose in arousing a desire to put truth in their place upon the part of others who knew the facts better.

Thus we are all helping each other slowly, but surely, up the hill of science. All we ask of each other is our last and best thoughts, honestly expressed, and that each accords to the other, freely, all the rights expected by himself; and he that is not willing to do this, is not yet morally or intellectually civilized.

I feel that no one should commence a series of articles upon the subject of "Extracted Honey," without mentioning the names of Chas. Dadant & Son, and referring to their little book upon this topic. If the value of a work consists in its candid, able and practical style, the quick adaptability of means to ends, and the profit to be realized by following its instructions, then, in my judgment, this little work on "Extracted Honey," for its size and cost, stands unrivalled by any book ever written upon the subject of apiculture. While the little work describes ways and means very different from what we would use to reach the same end, in each case the result reached is the same. In these articles I desire to pick up what stray heads of grain I can, that may have been left after Messrs. Dadants' harvester.

It may seem strange that a comb honey producer should choose this subject, but till within a very few years the greater portion of my production has been extracted honey. In this article I wish to consider the value of the commodity viewed from a palatable and hygienic standpoint. While my knowledge of chemistry is very limited, I know a few primary principles that I think apply directly to the

case under discussion. Honey is palatably enjoyed for its sweetness. Chemistry tells us that it ranks with glucose, in respect to that element, and that they are about one-third as sweet as cane sugar. This seems a bad defect—let us see:

Chemistry, also (like all sciences, modest and truthful) tells us that wood fiber (sawdust) possesses the same elements that glucose does. It admits it cannot see through it, sawdust is not sweet, and then asks, What is sweetness? No one being so well able to solve the problem, all look to chemistry with longing eyes, and she says, "it seems to me to be, simply, a peculiar arrangement of molecules that produce, by such arrangement, a certain sensation in the mouth called sweet."

Thus we see that at last the consumer is left to be the judge. This consumer has been in the habit, in the past, of calling honey the "sweetest of all sweets." If I am not much mistaken, all consumers of to-day who have judged only by their taste, believe honey to be first class in its sweetness. I remember reading in the BEE JOURNAL some years ago that honey was 88 per cent. as sweet as cane sugar. It seems that, after all, honey will assume for itself all the value established by the appetite. Chemistry may tell us to-day and to-morrow that glucose and honey are essentially the same—both grape sugar—of the same sweetness, etc., but that is not the impression upon the taste of man, or the health of bees. Any one who has taken a mouthful of glucose, was no doubt surprised at the lack of sweetness and general tastelessness of the stuff, notwithstanding that honey has been his standard. Now, if it should prove to be a fact that honey effects this sweet sensation in the glands of the taste only, that it fails to exhibit the same power in the stomach or in cookery, then that will be an argument against it as a staple, but largely in its favor as a luxury; perhaps so much so as to make it a staple luxury, like oysters, etc.

The indulgence in the pleasure of sweet-eating is, in this land of luxury and plenty, carried to excess, often to the extent of overbalancing the system. Of course, it is the principle of sweet acting upon the body below the glands of taste, that produces the bad effects. I am of the opinion that in honey we can "get the game without the blame," for I have never been able to eat enough of it yet to feel that my system was surfeited with sweet, as I have realized from excessive indulgence in cane and maple sugars.

The acute disturbances experienced by exceptional individuals, no doubt arise from their peculiar idiosyncrasies. Their stomachs probably contain, to an eminent degree, some peculiar elements that are very antagonistic to elements contained in the honey—some acids deposited by the glands of the bees, or some element in the floating pollen.

Most of us know that by subjecting honey to the degree of heat that boils water, for a short time, the particles of floating pollen appear to be either

discharged or dissolved; also certain acids seem to be discharged. Should the very least part of growth have begun (thus giving the honey a "twangey" taste), the degree of heat referred to destroys the bacteria, and honey, after being thus treated, will agree with many who cannot use it before such heating. This a point well for us to remember.

Were it not for the aid of that element heat, as applied to our food, there is little doubt but man would, to a far greater degree than at present, become a prey to these low forms of animal and vegetable life.

In comparing comb with extracted honey, little need be said. If extracted is more healthful than comb honey, I think it is only that which has been heated. The idea that wax, because indigestible is injurious, I deem a mistake. Physiologists tell us that the pylorus (the gate between the stomach and intestines) readily opens and lets through any indigestible substance, while it struggles long and hard with any food possibly digestible, and with the class difficult of digestion is where our trouble arises. One celebrated physiologist believes that a portion of certain kinds of wholly indigestible material, taken at our meals, serves a beneficent purpose. I would sooner think the particles of wax, so small as they are, were more favorable than otherwise.

I think the only question involving a discussion upon comb vs. extracted honey, is the one of greatest profit to the producer. I will touch that subject further on in these articles.

Dowagiac, Mich., Dec. 26, 1881.

For the American Bee Journal.

Improvement of Bees.

L. R. JACKSON.

Much has been said on this subject of late, and yet we are not agreed. Many queen breeders, and especially dollar-queen men, claim there is no improvement to be made in our Italian bees, and the best we can do is to rear our queens from imported mothers. Others claim they can be improved the same as other stock. I have said bees can be and have been improved, and I think the majority of successful honey producers agree with me in this.

Rev. A. Salisbury, in the AMERICAN BEE JOURNAL of May 9, page 74, says: "Our American Italians have been bred up to a high standard of excellence, and we want no step backward by importing inferior bees from Italy."

G. M. Doolittle, in his report for 1881, in *Gleanings*, page 527, says: "One thing we notice with pleasure which was that our colonies gave nearly an equal yield per hive. This is what I have been breeding for for the past few years, hoping to obtain like results from all, and not have one colony in the yard give a large yield and another nothing. When we, as apiarists of America, can bring our bees up to such a standard of excellence that all colonies will produce an equal amount of honey, and said amount be as large

as that produced by our very best colony of a few years ago, we shall have no further need of importing colonies, for *Apis Americana* will be the best bee in the world."

I have believed for three years that our bees could be improved until there will be but little difference in the amount of honey produced by any of our colonies. I find that my record book shows less difference each year since I have been trying to improve my bees, and I know I am not getting less honey, so it must be an improvement.

G. W. Demaree, in reply to an article of Doolittle's, says, on page 219 of the AMERICAN BEE JOURNAL: "Mr. Doolittle's advice, to breed from the queen whose colony produces the most honey, is a good theory, but in my opinion, poor practice." I have for years selected my best colonies for my queens and drones, and in my opinion it is the best thing we can do if we want good honey gatherers. Again Mr. Demaree says, on page 258 of the AMERICAN BEE JOURNAL: "To rear good queens we are told that we must select one colony to rear our queens from and another to furnish the drones to fertilize them, and we are ready for business. This looks quite business-like, and doubtless would answer well enough if the apiarist resided in some secluded spot where the wings of the honey bee had never fanned the air." Now, we do not claim that we can have every one of our queens mate with one of these select drones, neither do we claim it can be done at all times of the year, but we do claim we can have a large majority of our queens mate with these selected drones. I will give my plan of rearing queens. I breed for the honey gathering qualities, hardiness, and amiability. I select the queen that has given the largest amount of honey and has wintered best to rear my drones from; I then select as many of the next best as I wish to rear queens from. At least one of these queens must be selected from some other apiary to prevent too close in-and-in breeding. By the first of April I give each of these colonies a frame well filled with pollen, having been set away the summer before. I place plenty of drone comb in the hive I wish to rear drones from, and have the other hives all worker comb. I remove all combs the bees cannot cover and place a chaff cushion on each side of the cluster and a good thick cushion on top of the frames. I now commence to feed each of these colonies what they will use each day, and give more combs as fast as they will use them until they are built up to full colonies. As fast as a frame is filled with drone brood I remove it to one of the other colonies and give another frame of drone brood until I have as many drones as I want. I continue feeding each day until the bees swarm; I then remove three frames having no queen cells. I place these in a new hive and place a chaff division board on each side, and place the queen on these frames with bees enough to cover them and return the rest of the bees to the old hive. In 5 days I divide the old colony up into

nuclei—2 frames and a queen cell. I now break my drone colony up into nuclei for the remainder of the queen cells. If I still have queen cells left and wish to use them, I take frames from the colonies that have not been fed, if there are any that can spare them. These young queens will be fertilized before colonies that have been left to themselves will have any drones flying. Further south than this we should begin work earlier than the first of April. These nuclei can soon be built up to good strong colonies. This plan, of course, would not do for rearing large quantities of queens for sale at the price queens are now sold. I am not in the queen trade, being one who believes if it pays to keep bees at all it will pay to keep them for the honey they will gather. I have never made an average of less than \$5.50 per colony for the honey sold, besides the increase, and have run as high as \$24.00 per colony for all the bees I had in the spring. This is over and above all expenses, except for the new hive, and that expense I count to the new swarm. Next year I will try a few Syrian queens crossed with Italian drones, and a few with the second cross with Italians.

Friend Doolittle, would it not pay you to write a book on bee-keeping? We all know you are a successful bee-keeper, and when we want advice we need to go to one who is successful. I would be glad to have a book written by you and would pay a good price for one. It is true we have a number of good works on the apiary, but I believe a work could be written on the practical management of bees that would be of more use to the honey producer than any of them, and I have confidence enough in your plan of managing bees to believe you could give us just such a work as we need.

Fairland, Ind., Dec. 26, 1881.

From Florida Agriculturist.

Bee-Culture in Florida.

W. S. HART.

To the industrious bee-keeper, the coast counties of Southern Florida offer a field of profit unsurpassed by any other section of the United States. Among these counties, Volusia is at present ahead in amount of bees owned and honey produced. Here we have none of the winter troubles incident to Northern bee-keeping, such as winter packing, carrying in and out of cellars and bee-houses, freezing, dysentery, dwindling, etc., the last two of which carried off 50 per cent. of all the bees in the north during the past winter. That dreaded disease, "foul brood," is also unknown here. Our bees winter perfectly on the summer stands, and gather honey or pollen every month in the year. The honey flow commences about the first of February, and swarming about the 10th of March. In April or May we usually have a honey drouth of a few weeks, sufficient to check the swarming fever. Then comes the saw-palmetto, sweet bay, basswood, etc., giving a flow of

very heavy honey, of a light amber color, and excellent flavor. This flow lasts until the cabbage-palmetto and mangrove come, in the last part of June. From this on until about the 10th of August, the flow is continuous and heavy, the honey as handsome as can be produced, and of very fine flavor.

A resting spell now comes for the bees, which lasts until the middle of September, when the fall flowers, and later, the saw-palmetto berries yield a surplus of darker honey, suitable for winter supplies or spring feeding. As bees fly here almost every day in the year, fall honey can be fed without fear of dysentery.

Some of the leading honey and pollen producing trees are the maple, willow, sweet gum, the bays, orange, myrtle, oaks, basswood, hickory, youpon, mock olive, saw-palmetto, cabbage-palmetto and mangrove. The last two of which come together in the middle of summer, and are unequaled as honey producers by any thing else in the whole vegetable kingdom known to the writer. They produce honey in abundance of the finest quality, and we think it safe to say, never fail to produce a good crop. We also have honey-producing vines and plants too numerous to mention.

Bees increase very fast, and, as the season is long, and the winter mild, even a small handful of bees can be safely built up into a strong colony in a short time.

The writer started this past spring with 35 colonies, which increased to 86; some were disposed of, and others run for comb honey or queen raising, so there were but 60 colonies worked exclusively for extracted honey. From these I took 6,210 lbs. of honey by Aug. 10. I have since taken a few hundred pounds—enough to make my crop foot up 7,500 lbs., without putting my bees on short allowance. Several of my neighbors have done nearly as well.

Transportation for our crop to all the large markets of the world by water is good, and getting better every year. Hive lumber is cheap. Living is inexpensive, and orange growing (our leading industry here), can be coupled with bee-keeping to the advantage of both.

The bee's a model citizen—ease, food, life, all is yielded to the public good; No individual interests weigh a grain, Where there are public interests to maintain; As in old Rome, when all were for the State, Rich helped the poor, and poor men loved the great.

New Smyrna, Fla.

For the American Bee Journal.

Notes from Western Missouri.

LEE EMRICK.

Another year is numbered with the past. A year remarkable for its extremes of heat and cold; of floods and drouth, and closing with weather mild and spring-like. But mid all these changes the BEE JOURNAL has never failed to make its weekly call, and in renewing my subscription for the coming year I know I will be

entertained and benefited as I certainly have been in the past.

The past winter was most disastrous to bees, as many empty hives forcibly tell. I had 105 colonies at the beginning of winter. When the peach bloomed I could count but 45. By natural swarming my number now stands at 70, and I think in good condition, in numbers and stores. The honey crop was a failure. From 40 colonies in two story Langstroth hives, I extracted about 600 pounds, or an average of 15 pounds to the colony. From 30 colonies run for comb honey, I had no surplus. I sold my extracted honey readily at 15 cents per pound.

By this showing, any one can see that my bank account would be small if I depended on bee keeping alone. But I combine it with stock raising and farming, and so a failure of the honey crop is not so severely felt. The sweet clover certainly is to be prized as a honey plant; it blossomed longer than any other plant during the severe drouth of the past summer. I have been trying alsike clover, but it has not yet proved a success. I do not think it adapted to this climate.

Harrisonville, Mo., Dec. 28, 1881.

For the American Bee Journal.

Sweet Clover for Bottom Lands.

WM. BOLLING.

Bees in this part of the country are not in as good a condition to go into winter as they might be. The fall flow of honey was very small; the blossoms of goldenrod and aster dried up before they had fairly opened, and bees worked very little on them; this stopped late breeding, and but little brood was found in the hives by the end of September.

I packed my 42 colonies of bees for winter on their summer stands, in the same manner as described in BEE JOURNAL for Aug. 3, page 241. I had some 200 lbs. of honey in frames ready to extract, but while the drouth continued, I kept it for future necessity, and when I packed my bees, it was just the thing I needed to let my bees have plenty of honey to winter on.

Honey has been sold here from 15 to 18 cts. for comb, and 10 to 14 cts. for extracted. I have sold all my extracted honey to the laboring class of people for 14 cts. per lb., who want to put the honey on bread for their children on going to school. Two lbs. of honey will cost no more than 1 lb. of butter, and the former will go much further than the later.

As soon as we have educated the laboring classes in this country to use honey in this way, and that honey is as wholesome and healthful for their children as butter, honey producers will never see the market glutted with extracted honey.

Allow me to say to Mr. E. Doty, Macksburg, Iowa, that he can plant nothing better on his 8 acres of bottom lands than sweet clover to answer every purpose. Sweet clover will grow on bottom lands, even if the point of the roots will touch the water.

One of my neighbors had about 2 acres on the bottom of the Big Canadaway Creek, thickly grown with sweet clover; he mowed it in June, but when in August and September the sun had burnt up every green thing in the pastures, and farmers had to feed their cows from the hay-mow, his cows had plenty of green clover to eat, and could make butter without extra cost for grain; and last, though not least, my bees gathered the honey and worked on it from early morning until late at night.

Dunkirk, N. Y., Dec. 15, 1881.

For the American Bee Journal.

The Apiary Register Book.

M. L. TRESTER.

I like Mr. Thomas' suggestions about the form of this book. I would like a book ruled as follows: First column, number of stand or location, which is always permanent; then, number of hive, which is liable to be changed from one stand to another; age of colony; age of queen; race of bees from which the queen came; estimated number of bees in a colony, estimated amount of honey in the hive; when the honey was last taken away; date of last observation; two or three blank columns for apiarists to place a heading to suit themselves, and a wide column for remarks, simply a good book or none.

One year ago I packed straw all around and over the hives, two or three feet thick, leaving open the small entrance, and I lost them all. I bought two Italian colonies in the spring and started anew; increased to 14 colonies by division, and extracted 230 lbs. of honey, leaving them plenty for winter. If I have ten colonies in the spring I will feel positive that I have made over four hundred per cent. I like the BEE JOURNAL and my bees very much, but if I had a cast iron nose and upper lip I would like the bees better.

Lincoln, Neb., Dec. 17, 1881.

For the American Bee Journal.

Consumption of Honey in Winter.

REV. DR. M. MAHIN.

In the AMERICAN BEE JOURNAL December 28, W. Williamson, Lexington, Kentucky, says of bees flying out in such weather as we have had during the winter so far, "Of course they consume more honey." I am well satisfied from my observation during the last twelve years that this is a mistake, though a very common one. Two and four years ago the bees flew out almost every week, and sometimes almost every day for weeks at a time, and the consumption of honey was much less than in cold winters. If breeding were carried on abundantly the consumption of food would be large; but it is not, and with a moderate supply of honey I apprehend no danger from starvation. So far my bees, which are on the summer stands, have consumed but little honey, as in-

licated by the particles of comb dropped on the bottom boards. I do not know, of course, how much warmer the weather is in Kentucky than it is here; but I do know that in this part of the country the prospect for safe and successful wintering could not be better.

I am very much pleased, so far, with the Syrian bees. Mine are easily handled, and they are much more quiet in warm fall and winter weather than either blacks or Italians. And yet they will put dead bees outside of the hive when the temperature is below freezing. I will, if I live, give them a more thorough trial next year. I have but one purely mated queen, and I procured her from D. A. Jones, and of course she is pure and purely mated. I have three queens raised from her, but they were so late that I have not seen very many of their progeny. I think they mated with black drones. I have never seen bees fill themselves with honey, when the hive is opened, more eagerly than do the Syrians. They are somewhat excitable, and threaten to sting, but they seldom do it. If they prove equal to my expectations, I will Syrianize a large part of my apiary.

Of course, I want the BEE JOURNAL for next year, and all the rest of the years while I live and keep bees. Logansport, Ind.

For the American Bee Journal.

Bee-Keeping in Kansas.

E. M. LEWIS.

July 1, 1880, I purchased 11 nuclei, consisting of 1 queen and 1 lb. of bees each—put them at work in movable frames filled with comb foundation, but the season was so dry that even buckwheat and the fall flowers secreted but very little honey, consequently my bees did not have sufficient honey for such a winter as followed; therefore, I, like many others, lost most of my bees. But, having the combs and hives, I thought I would try it again. This time I sent for the same number at \$3 per nuclei, to be delivered the 1st of March, 1881, thinking this time I should succeed. They worked well up till June 9, then we got a great storm of wind, rain and hail, which destroyed and cut to the ground everything but timber and fences.

Now came the question what shall I do with my bees. They must all be fed for an indefinite time or die. I procured syrup, and fed them regularly every day for six weeks; then I had the bees in good condition, if there had been anything for them to gather. But the drouth following the wet spring continued, and I gave up in disgust with Kansas as a bee state, discontinued feeding, and said they might go; I would spend no more time or money on them. The result was some 3 or 4 colonies flew away, and then came a nice rain, and then another and so on.

There being some buckwheat and late flowers, they have laid up enough, I think, to go through until spring. I packed 8 in straw and buried 9 in a

clamp as recommended by D. B. Boomhower of N. Y., who published his success in wintering in the JOURNAL. Hanover, Kan.

For the American Bee Journal.

Bee and Honey Shows.

A. C. INNIS.

In attending the State Fair, held at Fond du Lac, I was very much disappointed at the limited show of the products of the apiary as well as bee-keepers' supplies. Being an amateur, I went there with the intention of learning something of a practical nature, but I had the good fortune to make the acquaintance of Mr. A. A. Winslow, of New Holstein, a thorough apiarist, and from him obtained much information, and also a good honey extractor.

I began the season of 1880 with one colony, increased to 3, and obtained 17 lbs. of honey, wintered without loss, in the cellar, but owing to ignorance, lost 1 by robbing. Last spring I purchased 2 more colonies increased to 8, which are in the best possible condition, and obtained 220 lbs. honey—17 lbs. being extracted.

My expenditures amount to \$38.70; the honey obtained amounts to \$42.75 and the 8 colonies, I value at \$48.

I am satisfied that it will pay to keep bees if done intelligently. Count me as a life subscriber to the JOURNAL, for without it I should be like a ship at sea without a rudder. I am laughed at here as a fanatic, but so long as I feel that I am on the right track I can sit in my apiary and laugh in return at those who are trying to make bees pay in the old slipshod way.

West Rosendale, Wis., Dec. 22, 1881.

For the American Bee Journal.

Good Pasturage for Bees.

PHILIP P. NELSON.

If I should compute, in dollars, the benefit the BEE JOURNAL has been to me during the past two years, it would cause the subscription price to look exceedingly reasonable.

The 10 colonies that I had left in the spring increased to 27, which are now in first class condition. I did not keep account of the pounds but have sold \$125.00 worth of honey in one and 2 lb. sections. The income from my best colony, in honey and bees at present prices, amounts to \$56.00. My bees are mostly hybrids. I have had one Italian queen. Most of the native bees here are a sort of a brown German kind, but very good bees. The Italian blood crosses on them with excellent results; producing fine workers, gentle to handle.

I have no trouble to sell honey; the great difficulty is to produce enough to meet the demand.

I am a farmer and stock raiser, and cannot give my bees the attention that I would like to, and yet I cannot

get all the good from the land unless I have the honey gathered. This year from one pasture I had an income at one time of milk, honey, butter, beef, pork and mutton, and I might add horseflesh. I am greatly interested in planting for honey; buckwheat does not seem to do much good here. Turner raspberries and catnip are the most eagerly sought after of any plants that grow here. Sweet clover grows in great profusion along many of the lanes; the bees always work on it, but I have never seen them go for it very lively; it is pretty sure to yield some honey, and I have noticed that bees that had sweet clover to work on, wintered better last winter than those that had none. We often get a big yield of heartsease honey. I consider it about the worst for wintering purposes, and yet it is fine honey to sell. Manteno, Ill., Dec. 28, 1881.

Farmers' Home Journal.

Purity of Honey Guaranteed.

W. WILLIAMSON.

At the last annual Convention of the State Bee-Keepers' Association, the question of adulteration of honey was discussed with great earnestness, and a unanimous resolution passed and a committee appointed to prepare a new act and endeavor to have it passed at the present session of the Legislature. The law at present reads as follows:

Sec. 1. Be it enacted by the General Assembly of the Commonwealth of Kentucky, that any person or persons who shall sell or cause to be sold any manufactured honey, unless such honey is so represented and designated as manufactured honey, shall for the first offense, be fined in any sum not less than ten nor more than one hundred dollars; and for each repeated offense shall be fined not less than fifty dollars nor more than two hundred and fifty dollars.

Sec. 2. That any person or persons who shall sell or cause to be sold any such manufactured honey which contains any substance injurious to health, shall, for the first offense, be fined in any sum not less than ten nor more than one hundred dollars, and for each repeated offense shall be fined not less than fifty nor more than two hundred and fifty dollars; and such adulterated articles, by order of court, shall be destroyed.

Sec. 3. This act shall take effect from its passage.

The adulteration of honey is carried on to such an extent that people in large cities cannot tell where to purchase pure honey. Hence the necessity of a stringent law that cannot be evaded (if it is possible to make such a law). Such an act would not only protect the bee-keepers, but protect the public from fraud and deception, such as the adulteration of food. It is also detrimental to the public health, and if a law can be made that will guarantee the purity of the food we eat, it ought to be made at once.

Lexington, Ky.

SELECTIONS FROM OUR LETTER BOX

Recipe for Making Honey Pop-Corn Balls.—Take one pint of extracted honey, put in an iron frying pan and boil until very thick, then stir in freshly parched corn, and when cool mold into balls. These will especially delight the children, and the older ones will not refuse them. Try them.
MRS. A. M. SANDERS.

Interested.—As a bee-keeper I cannot do without the JOURNAL, and even if I did not keep bees I should take it for the interesting information it contains on scientific matters.

L. JOHNSON.

Walton, Ky., Dec. 26, 1881.

A Correction.—In the BEE JOURNAL of Dec. 14, page 397, H. P. Sayles is reported saying that "the Italians required more care and attention than the blacks, and he believed, taking the season through, that he could get more box honey from the blacks than the Italians, and a better quality of extracted honey." It was Mr. John Hodgson that expressed himself in that way respecting the two races of bees, and not Mr. Sayles. Mr. Sayles was emphatic in expressing his preference for Italians to black bees, and Mr. Hodgson for blacks in preference to Italian bees. Further on in the report of the Northeastern Wisconsin Convention, on "the Yield and Increase of the Present Year," Mr. Sayles' increase in stock is omitted entirely. He had increased to 38 full colonies. His yield and increase was regarded as the largest of any one present, but leaving out his increase of stock, it would not be as large as some others. Will you, Mr. Editor, make this correction for the benefit of all concerned.

T. E. TURNER, Sec. pro tem.

State Society for New Jersey.—In BEE JOURNAL for Dec. 7, I see Mr. G. W. Thompson sounds a bugle-note for a State Society for New Jersey. That is what we want. It is high time New Jersey was on her feet in this matter.

CHAS. H. RUE.

Manalapan, N. J., Dec. 23, 1881.

Bees Wintering Well.—Bees are wintering nicely so far; they had a good flight on Nov. 30, and again Dec. 18 and 19. They went into winter with plenty of good stores, and we hope will come out much better next spring than they did last. The past season was rather poor here, the bees gathering but little surplus honey.

C. A. GRAVES.

Birmingham, O., Dec. 22, 1881.

Bees On The Wing.—The season has been mild, so far, and my bees celebrated Christmas while on the wing, on Dec. 24 and 25, 1881.

WM. STOLLEY.

Grand Island, Neb., Dec. 27, 1881.

Mild Winter.—Will the continued warm sunshine we now have, and have had all the fall and winter, cause bees to consume more honey than if it were colder? Up to this time we have had no snow, except, perhaps, $\frac{1}{2}$ an inch observable on sidewalks and fences one morning late in November. We have not had ice to exceed one inch in thickness and not more than ten mornings; days generally are clear and warm; bees fly almost every day; there is no danger of dysentery. A few days ago I heard a farmer say that he had some cherry blossoms; there is quite a difference between this and last winter, up to this time. We had 30 to 40 snows and everything froze up solid, and remained so until Feb. 1. Possibly our winter is yet to come. Bees are in good condition, and do not appear to be consuming but little honey.

D. W. BELLEMEY.

Vienna, Ill., Dec. 25, 1881.

[Yes; if the weather is cold enough to require artificial heat, and yet not so intense as to produce the semi-dormant state incident to extreme winter.—Ed.]

That Cough Medicine.—Many people are probably not aware that much of the linseed oil, especially that termed boiled, is adulterated with poisoned drugs. Therefore, when doctors recommend it for medicine, as Dr. Tinker has, they should caution the public.

P. F. TWITCHELL.

Andover, O., Dec. 27, 1881.

Questions.—1. Can honey extractors be made so as to accommodate two different sized frames—Langstroth on one side of the comb basket, and a frame 11x12 on the other?

2. Where quilts are entirely covered with propolis, should they be used for winter coverings?

3. Where natural swarms repeatedly fly up from the alighting-board and settle again upon a limb, what is the best course to pursue? Nearly all my swarms troubled me in this way last summer, and sometimes they would go to the woods. A. M. SANDERS.

[Yes; the Excelsior extractor, Nos. 3, 4 and 5, will accommodate Langstroth and American frames at the same time. Nearly all the approved patterns can be manufactured to carry combs of two sizes.

2. We would not advise their use.

3. Probably the best course to pursue is to clip off about half of one wing of the queen, and, if increase is wanted, hive them on a new stand; if no increase is desired, destroy the queen cells in the parent hive, clip the queen's wing, and return them.—Ed.]

Bees in N. W. Michigan.—In accordance with Mr. Demaree's suggestion, I will say for northwestern Michigan, that bees went into winter quarters about the middle of November; had

splendid flights Dec. 18, 25 and 26, and carried in water both days. The loss from my 19 colonies will not exceed a pint, while last year each colony had lost more than that. I have no fears for their safety. GEO. E. HILTON.
Fremont Center, Mich., Dec. 30, 1881.

Mignonette.—I would like information on the following points: 1. What can I plant in my yard that my bees can feed on? I have $\frac{1}{4}$ of an acre of a black loam, rich and dry. I want something that will bloom the same season sown, and be ornamental at the same time. 2. What is the proper space between the bottom-bar of a frame and the bottom-board of the hive? 3. Will the distance make any difference in wintering? I am a beginner. I bought 4 colonies of black bees last spring, which have increased to 9, besides giving me 350 lbs. of extracted honey. All are in good shape for wintering, and have at least 20 lbs. of sealed honey each. I am the only one keeping bees in this town, and have no trouble in mating my queens. I cannot discuss bee matters with the scientists, but I have the comfort of reading the BEE JOURNAL weekly, and anxiously await each number.

A. MONTREVIL.

Walkerville, Ont.

[1. You can plant mammoth mignonette, sweet basil, and many other annuals with good ornamental effect and remunerative profit. This will also give opportunity for planting to advantage during the season with biennials and perennials.

2. Three-eighths of an inch is the proper space to allow between the bottom of the frame and the bottom board of the hive.

3. The space in the bottom will make no perceptible difference in wintering, unless, indeed, it should run to an extreme.—Ed.]

Bees in Georgia.—DEAR EDITOR: Permit me to congratulate you for the successful accomplishment of the great task you have ventured upon—the establishing of a Weekly bee-paper. Now that you have conquered the initial difficulties, I trust that the path before you will be smooth. The past year has not been a prosperous one for the bee-keepers in this latitude. Indeed, the past summer and fall have been even more disastrous to them than the winter had been to the Northern bee-keepers; for, during the unprecedented drouth of 4 or 5 months' duration, the bee-forage absolutely failed, the queens stopped to lay, the colonies dwindled down, the invasions of the moths could not be checked, and thus most of the bee-keepers I know lost all their bees. I saved mine (kept in my garden in the city), only by the closest attention and watchfulness; but the colonies are now extremely weak. They, of course, did not afford any surplus honey during the past season. L. KNORR.

Savanna, Ga., Dec. 23, 1881.

Poor Honey Season.—I was nearly discouraged last spring when I found 18 out of 20 colonies of bees had died. But I determined to try again and I bought 10 colonies, which I increased to 28, in good condition for winter. I got 335 lbs. of clover honey in 2 lb. sections. The season was a very poor one for honey in this county, the long drought cut the season very short. I sold all my honey at 25 cents per lb.

WM. B. McCORMICK.

Uniontown, Pa., Dec. 5, 1881.

Sixty Colonies on Summer Stands.—I am pleased to know that the BEE JOURNAL is to have smaller pages in 1882. They are more convenient to preserve and handle. Every one who has 5 colonies should take the BEE JOURNAL. I have 60 colonies on the summer stands all in good condition. They had a flight on Dec. 14.

THOS. PIERCE.

Gansevoort, N. Y., Dec. 19, 1881.

Making Comb Foundation.—I had 30 colonies of bees in the fall of 1880 packed in chaff; all came out alive in the spring, 2 were queenless and I left the hive in April. They had no flight from Nov. 9 till March 6. I increased to 61, and extracted 2,500 lbs. of honey. All have plenty of good honey for winter and are in good condition, packed the same as last winter. I have tried all kinds of soap to make comb foundation with, but had little satisfaction. Last summer I used 1 lb. of honey mixed with one-fourth of water; it worked like a charm and needs no washing. We have a machine to even the sheets and roll them out 5 and 6 feet long. DAVID BYER.

Markham, Ont., Dec. 21, 1881.

Clock-Work.—Success to the BEE JOURNAL. After reading it for the past year, I have concluded that the editor is like the pendulum of a clock, steady, but right on the mark every time. While you conduct the BEE JOURNAL, Mr. Editor, and I keep bees, send it right along to

GEO. WILLIAMS.

Nashua, N. H., Dec. 17, 1881.

Packed in Chaff.—Last spring I had 23 colonies; I increased them to 52, and extracted 2,900 lbs. of honey, and took 100 lbs. of comb honey, leaving them plenty of stores for winter. They are packed in chaff. I believe upward ventilation kills more bees than anything else. I always put the cap down tight with a sheet of paper under it, and put the hives under the chaff in a bin, with a heavy weight on the top of the chaff. The tightest one always winter the best.

ARTHUR J. RUSSELL

Millbrook, Ont., Nov. 22, 1881.

Successful.—I cannot keep house without the BEE JOURNAL; put me down for a subscriber as long as I keep bees. I began taking the BEE JOURNAL with the first colony of bees, three years ago. I have had good success, which I owe in a great measure to the BEE JOURNAL. A. G. RYKERT.

Attica, N. Y. Dec. 24, 1881.

The New Races of Bees.—My bees are wintering well so far. I have not tried the new races, and unless I hear better reports about them, I think I shall let them alone. I can sell extracted honey at home for nearly as much as I can comb honey.

ISAAC SHARP.

Waveland, Ind., Dec. 29, 1881.

Poor Bee Pasturage.—This is rather a poor location for bees; we depend on white clover, and that has failed for three seasons. I lost all my bees last winter except eight colonies, and they were very weak. I obtained no surplus, but increased to 31, and fed about 200 lbs. of granulated sugar, which gives them plenty for winter, but some are rather weak in bees.

WM. H. RAFTERY.

Pittsfield, Ill., Dec. 26, 1881.

Bees in Florida.—Perhaps a line from one of your readers, formerly of Salem, Ind., but now a sojourner in this land of flowers, would be of interest to your many readers. Bees can be kept here in any kind of a shell that will keep out the rain and sunshine, and feed them on anything sweet, except glucose—that curse to honey-producers. It is no trouble to winter bees here, if you leave them enough to eat, or will feed them sugar cane syrup, if they have not enough honey. Those keeping bees here say the orange is the best and first plentiful bloom giving them honey and building up their bees to swarming in March; but I think that for successful honey gathering here I would feed up my bees strong, so that I could get the surplus honey from orange bloom, which can be done, for it would be no task to have the colonies strong by the middle of February. Should I ever stop any season here I would try my hand at bee-keeping for our Northern trade. The weather is warm as our June is usually. We have had but one frost here this winter yet, and it is thought there will be no more. The thermometer on Christmas was 80° at noon.

JOHN CRAYCRAFT.

Waldo, Fla., Dec. 26, 1881.

Worth \$50 a Year to Me.—Please send me the JOURNAL as long as you and I live. I have received it for 1881, and it was worth 25 times its subscription price to me.

SAMSON J. HOPKINS.

Evansville, Wis., Dec. 30, 1881.

Hybrids as Honey Gatherers.—I have 12 colonies of bees in winter quarters. I have kept bees for 10 years, and, seeing so many bad reports last winter from all over the country, I thought it my duty to report my success in wintering. During all my experience in bee-keeping I have lost only 1 colony, and that was 9 years ago. Last winter I had 7 colonies; all came through strong; they never were in better condition than last spring. My bees and myself were ready for the honey harvest. Apples and cherries yielded abundantly; next came white clover, but, to my disappointment, only for a few days. Dry weather set

in and there was no more honey for us. My average crop per colony was about 30 lbs., all in 2 lb. sections. I have 3 colonies of Italians, but like my hybrids best, not for beauty, but for honey gathering. I sold all my honey at 25 cts. per lb.

C. H. NAGLE.

Allentown, Penn., Dec. 18, 1881.

Enthusiastic Appreciation.—I consider the BEE JOURNAL indispensable. I should be lost without its timely hints. Its Convention notes, containing the views of the master minds of the apiarian world, is enough to make the heart of the smaller apiarist leap for joy. Long live its editor, who fights so valiantly against glucose and adulterations generally. I have 28 colonies with blankets over the tops and $\frac{1}{2}$ inch strips under. I will give the results in the spring. I keep feed in dry places for them every warm day, of which we have had many. The weather is warm and rainy.

G. W. ASHBY.

Valley Station, Ky., Dec. 28, 1881.

Home Market for Honey.—The weather is remarkably warm for the time of year. My bees are in cellar, and, to all appearance, are doing well. I leave the entrance below open, keep the room perfectly dark, and they are as still as mice. I have no fear as long as they have plenty of air below. I sell all my honey at 25 cents per lb. at Galva. It is in pound boxes with label on top of each section, as follows: "One pound of pure, unadulterated comb honey from the apiary of J. M. A. Miller." I find no trouble to sell all I have to spare at a good price with the above guarantee, and those who attempt to use my name to sell an inferior article at a reduced figure, are cut off.

J. M. A. MILLER.

Galva, Ill., Dec. 23, 1881.

[Yes; the way to succeed is to develop the home markets.—ED.]

What a Contrast.—A year ago, at a corresponding date, the earth was covered with deep snow; every stream and rivulet was frozen over, and the merry jingle of sleigh bells resounded over hill and dale. To-day the weather is as warm as a pleasant May day, and in place of the musical jingle of bells we had more animated and much sweeter music (to our ears) the humming of countless numbers of bees. So far this winter we have scarcely had ten days in succession when our bees were not flying one or more days. We feel quite safe now, should we get a cold snap for even six weeks. Our bees carried pollen to-day from rye and oats, chopped, placed in the yard for them.

W. H. STOUT.

Pine Grove, Pa., Dec. 28, 1881.

Wintering Nicely.—I have 80 colonies of bees in chaff hives. They are wintering nicely, and had a flight every few days during the winter, so far.

F. E. TOWNSEND.

Hubbardston, Mich., Dec. 29, 1881.

THE AMERICAN BEE JOURNAL

RATES FOR ADVERTISING.

20c. per agate line of space, each insertion.

A line of Agate type will contain about eight words; fourteen lines will occupy 1 inch of space.

Special Notices, 50 cents per line.

DISCOUNTS will be given on advertisements for the Weekly as follows, if paid in advance:

For 4 weeks.....	10 per cent. discount.
" 8 ".....	20 " "
" 13 " (3 months)....	30 " "
" 26 " (6 months)....	50 " "
" 39 " (9 months)....	60 " "
" 52 " (1 year).....	75 " "

Discount, for 1 year, in the Monthly alone, 25 per cent., payable in advance.

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Transient Advertisements payable in advance. —Yearly Contracts payable quarterly, in advance.

THOMAS G. NEWMAN,

974 West Madison Street., Chicago, Ill.

Special Notices.

To Advertisers.—By reference to our schedule of rates for advertising by the year, it will be seen that considerable reduction has been made. This, in connection with our large and increasing circulation, makes it advantageous to dealers to avail themselves of its weekly visits to the bee-keepers of America to make their announcements for the coming season's trade. We not only offer the best advertising medium, but the lowest rates on yearly contracts.

How to get the Weekly Bee Journal free of cost for 1882.—Until further notice, any subscriber who desires to obtain a good book on apiculture, can have either Cook's Manual, Quinby's New Bee-Keeping, or Novice's A B C, bound in cloth, postpaid, and the Weekly BEE JOURNAL for one year, for \$3.00; or with King's Text-Book, or Blessed Bees (a romance), bound in cloth, for \$2.75. The JOURNAL and all five books for \$6.00. This is a rare chance to get a good library on bee-keeping. A person can sell the books for their published price, \$6.00, and get the Weekly BEE JOURNAL free for his trouble.

Those having already paid for the Weekly BEE JOURNAL for 1882 may send for the books alone and deduct the \$2 already sent for the JOURNAL.

This offer will be withdrawn on January 10th.

Special Notice.—We send this number of the BEE JOURNAL to those of our subscribers for last year who have not yet sent on the money for 1882. Many of the renewals will be in transit in the mails, and those who have not yet started the money are hereby cordially invited to do so at once, or they will receive no more, unless we hear from them immediately.

We invite ALL to promptly renew, and save the unnecessary trouble of taking the names from our mail list, and having to replace them again in a few days. Promptness in this will save us much valuable time and perplexity.

Once in a while we receive a rather uncourteous letter because the BEE JOURNAL is discontinued when the time is out that has been paid for. We try to please all our subscribers, but it is not an easy task for us to determine who does and who does not want it so continued; so we must ask to be informed on the subject.

Now, if all who desire it continued would drop us a postal card, or mention it when they are sending a remittance, it would save us much trouble and themselves the annoyance of having the JOURNAL stopped.

Thousands have used Kendall's Spavin Cure for rheumatism after all other remedies had failed, and have experienced instant relief. 1w4t

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

Articles for publication must be written on a separate piece of paper from items of business.

To Promote a Vigorous Growth of the hair, use Parker's Hair Balsam. It restores the youthful color to gray hair, removes dandruff, and cures itching of the scalp. 1w4t

When changing a postoffice address, mention the old as well as the new address.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

"How do You Manage," said a lady to her friend, "to appear so happy all the time?" "I always have Parker's Ginger Tonic handy," was the reply, and thus keep myself and family in good health. When I am well I always feel good-natured." See other column. 1w4t

Premiums.—Those who get up clubs for the Weekly BEE JOURNAL for 1882, will be entitled to the following premiums. Their own subscription may count in the club:

For a Club of 2,—	a copy of "Bees and Honey."
" 3,—	an Emerson Binder for 1882.
" 4,—	Apiary Register for 50 Colonies, or Cook's (Bee) Manual, paper, cloth.
" 5,—	Weekly Bee Journal for 1 year, or Apiary Register for 200 Col's.

Or they may deduct 10 per cent in cash for their labor in getting up the club.

Binders for 1882.—We have had a lot of Emerson binders made especially for the BEE JOURNAL for 1882. They are lettered in gold on the back, and make a nice and convenient way to preserve the JOURNAL as fast as received. They will be sent post paid by mail for 75 cents.

Binders cannot be sent to Canada by mail—the International law will not permit anything but samples of merchandise of less weight than 8 ounces. Canadians will please remember this when ordering Binders.

Look at the wrapper label and see that proper credit is given for money sent us, within 2 weeks. If it does not then appear, please send us a Postal Card, and we shall with pleasure make the correction, for an error may occur during the rush at this season, though we endeavor to be careful to always give proper credit.

The Apiary Register will be ready to send out next week.

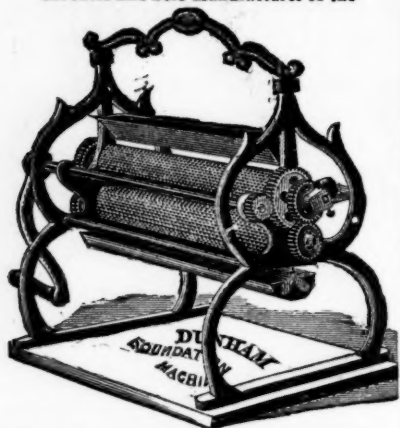
It devotes 2 pages to each colony, embracing between twenty and thirty headings, neatly ruled and printed, with space at bottom for remarks, and so arranged that a single glance will give a complete history of the colony. Each book will also contain printed rules for the apiary, and twelve pages ruled and printed for an apiary cash account. As each book is intended for a several years' record, it is gotten up on first class paper, and strongly bound in full leather covers. There will be three sizes, sent postpaid, at the following prices:

For 50 colonies (120 pages).....	\$1 00
" 100 colonies (220 pages).....	1 50
" 200 colonies (420 pages).....	2 00

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones to procure at the start. We have added these to our new Premium List for getting up Clubs for the JOURNAL.

FRANCES DUNHAM,

Inventor and Sole Manufacturer of the



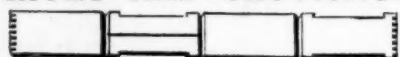
Dunham Foundation Mill,

Patented July 28th, 1881.

New Circular and Samples free.

FRANCES DUNHAM, DePere, Wis.

HIVES AND SECTIONS.



We are in better shape than ever to furnish Bee Hives and Sections, having remodeled our machinery, and put everything in tip-top order for the coming season. We make a specialty of our

"BOSS" ONE-PIECE SECTION.

We have not sold any rights to manufacture, therefore we are the sole manufacturers in the United States. Send for Price List.

JAS. FORNCROOK & CO.

Watertown, Wis., Dec., 1881.

NOTICE—Some persons having infringed upon our Patent "One-Piece Section," we hereby give notice, that we shall prosecute all manufacturers. We shall not molest bee-keepers for using those purchased before Dec. 1st, 1881, but hereby caution them against buying any except those bearing our stamp. It has been reported by some that it is our intention only to prosecute bee-keepers for using those One-Piece Sections heretofore purchased; this is wholly untrue and false.

JAS. FORNCROOK & CO.

Watertown, Wis., Dec. 15, 1881.

Quinby's New Bee-Keeping.



If you desire the benefit of an experience which has enabled us to secure 32,809 lbs. of honey from 100 colonies of bees during the present season, send for our book. It contains 270 pages, with 100 illustrations, and is fully up to the times. Price, by mail, \$1.50. We sell everything used in advanced bee-culture. Send for our illustrated circular.

L. C. ROOT & BRO.,

46smkf

MOHAWK, NEW YORK.

READ THIS.

FIFTY YEARS AN APIARIST.

We are the oldest breeders of Italian bees and manufacturers of apiarian supplies in New England. Our experience dates back to the first experiments of Mr. Langstroth in the movable comb system. Send for our price list of bees, queens and supplies, before making your purchases for 1882. Address, **WM. W. CARY & SON,** 1mtf Coleraine, Franklin Co., Mass.

G. M. DOOLITTLE says our **THIN VAN-DEVORT FOUNDATION** stands one notch higher than natural comb, and beats all others. He has tried it. Send for samples and prices. 1wt G. W. STANLEY & BRO., Wyoming, N. Y.

FOUNDATION

WHOLESALE AND RETAIL.

Dealers in bee-supplies will do well to send for our wholesale prices of Foundation. We now have the most extensive manufactory of foundation in the country. We send to all parts of the United States. We make

ALL STANDARD STYLES,

and our wax is nowhere to be equalled for cleanliness, purity and beauty. Extra thin and bright for sections. All shapes and sizes.

Samples free on request.

CHAS. DADANT & SON,

52smtf

Hamilton, Hancock Co. Ill.

\$777 A YEAR and expenses to agents, outfit free, address **P. O. Vickery** Augusta, Maine. 36wly

ALFRED H. NEWMAN,
DEALER IN ALL KINDS OF
Bee-Keepers' Supplies,
HONEY AND BEESWAX,
CHICAGO, ILL.
972 West Madison Street,

BEE-KEEPERS

All buy Dodge's Summer and Winter Top and Entrance Feeder and Upward Ventilator. It feeds syrup, candy, sugar, comb, or extracted honey, or any suitable bee food, in a temperature corresponding with the interior of the hive; a perfect upward ventilator, without loss of heat. Needs no testimonials; 1 sample captures every bee-keeper. The bottom of the feeder can be tin, wood, paper, cloth, etc. I prefer cloth under all ordinary circumstances as on sample. Sample, by mail, 30c. Per doz., via express, \$2.00.

U. E. DODGE, Fredonia, N. Y.

Inventor and Sole Manufacturer, and manufacturer and dealer in all kinds of Apiarian Stores. 51w3t

BARNES' PATENT Foot Power Machinery

CIRCULAR and

SCROLL SAWS,



Hand, Circular Rip Saws for general heavy and light ripping, Lathes, &c. These machines are especially adapted to **Hive Making**. It will pay every bee-keeper to send for our 43 page illustrated Catalogue.

W. F. & JOHN BARNES, Rockford, Winnebago Co., Ill.

Books for Bee-Keepers.

Sent by mail, postpaid, on receipt of price, by

THOMAS G. NEWMAN,

974 West Madison Street, CHICAGO, ILL.

Bee-Keeper's Guide for Cook's Manual of the Apiary.—Entirely re-written, elegantly illustrated and fully "up with the times" on every subject of bee-culture. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, \$1.25; paper cover, \$1.

Quinby's New Bee-Keeping, by L. C. Root.—The author treats the subject of bee-keeping so that it cannot fail to interest all. Its style is plain and forcible, making all its readers realize that its author is master of the subject.—\$1.50.

Novice's ABC of Bee-Culture, by A. I. Root.—This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, \$1.25; paper, \$1.

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, \$1.00; paper, 75c.

Langstroth on the Hive and Honey Bee.—This is a standard scientific work. Price, \$2.

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, \$1.00.

Bees and Honey; or, successful management of the Apiary, by Thomas G. Newman.—This embraces the following subjects: Location of the Apiary—Honey Plants—Queen Rearing—Feeding—Swarming—Dividing—Transferring—Italianizing—Introducing Queens—Extracting—Quieting and Handling Bees—Marketing Honey, etc. It is published in English and German.—Price for either edition, 40 cents, postpaid.

Dzierzon Theory—presents the fundamental principles of bee-culture, and furnishes the facts and arguments to demonstrate them. 15c.

Honey, as Food and Medicine, by Thomas G. Newman.—This pamphlet discourses upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wine, etc. and Honey as Medicine with many useful Recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in English and German. Price for either edition, 6c.; per dozen, 60c.

Wintering Bees.—This contains the Prize Essays on this subject, read before the Centennial Bee-Keepers' Association. The Prize—\$25 in gold—was awarded to Prof. Cook's Essay, which is here given in full. Price, 10c.

The Hive I Use—Being a description of the hive used by G. M. Doolittle. Price, 5c.

Extracted Honey: Harvesting, Handling and Marketing.—A 24-page pamphlet, by Ch. & C. P. Dadant, giving in detail the methods and management adopted in their apiary. This contains many useful hints.—Price 15c.

Practical Hints to Bee-Keepers, by Chas. F. Muth: 32 pages. It gives Mr. Muth's views on the management of bees. Price, 10c.

Food Adulteration: What we eat and should not eat. This book should be in every family, and ought to create a sentiment against adulteration of food products, and demand a law to protect the consumer against the numerous health-destroying adulterations offered as food. 200 pages. 50c.

Moore's Universal Assistant, and Complete Mechanic, contains over 1,000,000 Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer and Business Man. Gives 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Miners, Metallurgists, Assayers, Plumbers, Gas and Steam Fitters, Bronzers, Gilders, Metal and Wood Workers of every kind.

The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Price, postage paid, \$2.50.

Kendall's Horse Book.—No book could be more useful to horse owners. It has 35 engravings illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has recipes, a table of doses, and much valuable horse information. Paper, 25c.

Ropp's Easy Calculator.—These are handy tables for all kinds of merchandise and interest. It is ready in a lightning calculator, well bound, with slate and pocket. Cloth, \$1.; Morocco, \$1.50.

Chicken Cholera, by A. J. Hill.—A treatise on its cause, symptoms and cure. Price, 25c.

Address,

THOMAS G. NEWMAN,

974 West Madison Street, CHICAGO, ILL.